Table 8A. Program Outcomes: Predoctoral

Rationale

For new applications, this table provides information on the effectiveness of the proposed training program.

For renewal applications, this table provides information about the use of predoctoral training positions (e.g., distribution by faculty member, year in program, years of support per trainee). The data also permit an evaluation of the effectiveness of the supported training program in achieving the training objectives of the prior award period(s) for up to 15 years.

Instructions

Part I. Those Appointed to the Training Grant

In **Part I**, list sequentially, by year of entry into the graduate program, all trainees who have been supported by this grant at any time during the last 15 grant years, including those who did not complete the training program for any reason. If the grant has been active for less than 15 years, list all trainees to date. If there were any individuals appointed to the training grant as both students and postdoctorates, they should be reported on Table 8A only. For training grants with awarded short-term training positions, do not include short-term trainees in this table.

For each trainee, provide:

- 1. Trainee. Provide the Trainee name in the format Last Name, First Name and, Middle Initial.
- 2. **Faculty Member.** In the format of Last Name, First Name and Middle Initial., provide up to two primary research training faculty acting as mentors (for trainees, these will be training grant faculty). If not yet selected, indicate "TBD" (to be determined).
- 3. **Start Date.** Provide the calendar month and year of entry into the current degree-granting program in the format MM/YYYY (for trainees, this date may precede the appointment to the training grant).
- 4. **Summary of Support During Training.** Provide the primary source and type of support during each twelve-month period of training, using TY1 for Training Year 1, TY2 for Training Year 2, etc. For doctoral programs, TY1 will be the year the trainee entered doctoral training and the final Training Year will be the year the degree was granted (for dual-degree programs that do not award both degrees simultaneously, the final Training Year will be the year the last degree was granted). For NIH and other HHS support, list the awarding component and the activity (e.g., CA R01). **Bold** the grant being reported in this application. For other sources and types of support, use the categories below, and report only the primary source and type of support for each twelve-month period of training.

Sources of Support:

- NSF
- Other Federal (Other Fed)
- University (Univ)
- Foundation (Fdn)
- Non-US (Non-US)
- Other (Other)
- None: Leave of Absence (LOA)

Types of Support:

- Research assistantship (RA)
- Teaching assistantship (TA)
- Fellowship (F)
- Training Grant (TG)
- · Scholarship (S)
- Other
- 5. **Terminal Degree(s) received and Year(s).** If applicable, list the terminal degree(s) received and year(s) awarded. Trainees currently in the program should be designated "in training;" for those who left the graduate program without a degree, report "none."
- 6. Topic of Research Project. Enter the topic of the research project.
- 7. **Initial Position and Current Position.** For trainees who completed or left the graduate program, provide their initial and current positions, departments, and institutions, as applicable. If individuals have held only one position, complete only the initial position column. If individuals hold joint appointments/positions, list only the primary position. If information is not available, report "unknown." For each position, indicate the workforce sector (i.e., academia, government, for-profit, nonprofit, other) and principal activity (i.e., primarily research, primarily teaching, primarily clinical, research-related, further training, unrelated to research). Research-related positions generally require a doctoral degree and may include activities such as administering research or higher education programs, science policy, or technology transfer.
- 8. **Subsequent Grant(s)/Role/Year Awarded.** If applicable, list subsequent fellowship, career development, or research grant support obtained from any source, whether as PD/PI or in another senior role (i.e., co-investigator, faculty collaborator, or staff scientist) after the individual completed training. For NIH and other HHS support, list the awarding component, activity, role, and year (e.g., GM R01/Staff Scientist/2011). Up to five grants may be listed.

Part II. Those Clearly Associated with the Training Grant

In **Part II**, the initial time this section is completed for a Research Performance Progress Report (RPPR), list any **current** graduate students clearly associated with this grant who have been supported by NIH and other HHS funds but not by this grant, and provide the information described in Part I, items 1-8, above, for each student. "Clearly associated" students are those with a training experience similar to those appointed to this grant, but who are supported by other NIH or HHS awards (e.g., fellowships or research grants). For subsequent RPPRs and renewal applications, provide updated information on clearly associated students, reflecting new entrants and other changes over the reporting period. In each subsequent year, continue to add new entrants and provide updated information about current and past clearly associated students until 15 years of data have been completed; do not include data older than 15 years.

Part III. Recent Graduates

In Part III (only for new applications and postdoctoral renewal/revision applications requesting an expansion to predoctoral support), list sequentially all students graduating in a field or from a program similar to the proposed program in the last five years who would have been eligible for the proposed program, if an NIH or other HHS training or related award were available (in most cases, these will be U.S. citizens or permanent residents). For each student, provide the information described in Part I, items 1-3 and 5-8, above.

Summarize the data from Parts I-III (as applicable) in the Research Training Program Plan, either in the <u>Program Plan Section or the Progress Report Section</u>, as appropriate.

For Research Performance Progress Reports (RPPRs) and renewal applications, provide updated trainee information in Part I, reflecting new appointments and other changes over the reporting period. Do not include data older than 15 years. In Part II, provide updated information on clearly associated students, reflecting new entrants and other changes over the reporting period. In each subsequent year, continue to add new entrants and provide updated information about current and past clearly associated students until 15 years of data have been completed; do not include data older than 15 years. For the RPPR, summarize these data, along with

updated program statistics in Part IV, in the Accomplishments Section, in responding to the question, "What opportunities for training and professional development has the project provided?".

Part IV. Program Statistics

In **Part IV**, report: 1) the percentage of trainees entering 10 years ago and receiving support from this training grant at some point during graduate school who received Ph.D.s or equivalent research doctoral degrees, and 2) the average time to degree for all trainees appointed to this training grant completing Ph.D.s in the last ten years, calculated to one decimal place (e.g., 5.5 years). Programs that have not received support for at least 10 years should not include the first section of the table the (i.e., the percentage of trainees completing their degrees within 10 years). New programs that have not yet had any trainees complete the Ph.D. should not include this table at all.

In calculating these program statistics, students leaving graduate school to transfer to medical school or other doctoral-level professional programs should be counted as part of the entering pool, but not as having earned a Ph.D.-equivalent degree. Individuals transferring to or from Ph.D. programs in similar fields at other institutions should be excluded from both the entering and graduating cohorts in calculating completion and time to degree.

Time to degree should be calculated as the period from enrollment in a doctoral degree program at the reporting institution to the conferral of a Ph.D. or, in the case of dual-degree programs, both degrees. If a student earns a master's degree from the reporting institution prior to and in conjunction with fulfilling the requirements for the research doctoral degree, or an additional doctoral degree as part of a dual-degree program (e.g., M.D./Ph.D., D.D.S./Ph.D.), time to degree should be calculated from entry into the first degree program.

Sample Table 8A. Program Outcomes: Predoctoral

Part I. Those Appointed to the Training Grant

| Trainee | Faculty Member | Start Date | Summary of Support During Training | Terminal Degree(s) Received and Year (s) | Topic of Research Project | Initial Position | Current Position | Subsequent Grant (s)/ Role/Year Awarded |
|---------------------|---------------------------|---------------|--|--|---|--|---|--|
| Cox, Charles C. | Doe, John Smith, Jerry | 09/1998 | TY 1: HL T32 TY 2: HL T32 TY 3: HL F30 TY 4: HL F30 TY 5: HL F30 TY 6: Fdn RA | M.D./Ph.D., 2003 | The role of Notch in blood vessel maturation | Resident Internal Medicine Emory University Academia Further Training | Assistant Professor Hematology Rutgers University Academia Research-Related | HL K23/PI/2011 HL P01/Co-I/2014 |
| Johnson, Gina R. | Doe, John | 09/1998 | TY 1: NSF F TY 2: NSF F TY 3: NSF F TY 4: HL T32 TY 5: HL T32 TY 6: GM R01 | Ph.D. 2003 | Interactions between circadian rhythms, sleep & metabolism | Postdoctoral Fellow Molecular Biology UC San Francisco Academia Further Training | Research Associate Molecular Biology UC San Francisco Academia Primarily Research | HL F32/PI/2005 GM R01/Staff Scientist/2011 |
| Phelps, Ryan | Vasquez, Richard | 09/1999 | TY 1: HL T32 TY 2: HL T32 | M.S. 2001 | Viralinfections | Laboratory Technician Parke-Davis For-profit Primarily Research | Laboratory Manager Pfizer For-profit Primarily Research | |

Part II. Those Clearly Associated with the Training Grant

| Trainee | Faculty Member | Start Date | Summary of Support During Training | Terminal Degree(s) Received and Year (s) | Topic of Research Project | Initial Position | Current Position | Subsequent Grant (s)/ Role/Year Awarded |
|--------------------|-------------------|---------------|---|--|---|--|------------------|---|
| Robinson, Brian | Smith, Jerry | 09/2010 | TY 1: Univ S TY 2: CA R01 TY 3: CA R01 TY 4: Fdn F | In Training | Reconstitution of Tumor suppressor function | | | |
| O'Leary, Ann L. | Coates, Robert | 09/2008 | TY 1: GMT32 TY 2: GMT32 TY 3: CAT32 TY 4: CAF31 TY 5: CAF31 | Ph.D. 2013 | Genetic Cancer Biomarkers | Postdoctoral Fellow Molecular Biology UCLA Academia Further Training | | |

Part III. Recent Graduates (Only for New Applications and for Postdoctoral Renewal/Revision Applications Requesting an Expansion for Predoctoral support)

| Trainee | Faculty Member | Start Date | Summary of Support During Training | Terminal Degree(s) Received and Year (s) | Topic of Research Project | Initial Position | Current Position | Subsequent Grant (s)/ Role/Year Awarded |
|------------------------|---------------------|---------------|--|--|---------------------------------------|--|------------------|---|
| Moore, Thomas P. | Trimmer, Sean R. | 09/2007 | | Ph.D. 2013 | Src Kinase and Breast Cancer | Postdoctoral Fellow Medicine Boston University Academia Further Training | | |
| Rosenthal, Julia R. | Coates, Robert | 09/2009 | | Ph.D. 2014 | Modulation of host cellular responses | Medical Student Medicine Northwestern University Academia Further Training | | |

Part IV. Program Statistics

| Percentage of Trainees Entering Graduate School 10 Years Ago Who Completed the PhD | Average Time to PhD for Trainees in the Last 10 Years | | | |
|--|---|--|--|--|
| 50.2% | 6.5 years | | | |

Table 8C. Program Outcomes: Postdoctoral

Rationale

For new applications, this table provides information on the effectiveness of the proposed training program.

For renewal applications, this table provides detailed information about how postdoctoral training positions are used (i.e., distribution by year in program, distribution by faculty member, years of support per trainee). The data also permit an evaluation of the effectiveness of the supported training program in achieving the training objectives of the prior award period(s) for up to 15 years.

Instructions

Part I. Those Appointed to the Training Grant

In **Part I**, list sequentially, by year of entry into the postdoctoral research training program, all trainees who have been supported by this grant at any time during the last 15 years, including those who did not complete the training program for any reason. If the grant has been active for less than 15 years, list all trainees to date. If there were any individuals appointed to the training grant as both students and postdoctorates, they should be reported on Table 8A only.

For each trainee, provide:

- 1. Trainee. Provide the trainee name in the format Last Name, First Name and Middle Initial.
- 2. Doctoral Degree(s) and Year(s). Provide the trainee's doctoral degree(s) and the year(s) awarded.
- 3. **Faculty Member.** In the format of Last Name, First Name and Middle Initial., provide up to two primary research training faculty acting as mentors (for trainees, these will be training grant faculty). If not yet selected, indicate "TBD" (to be determined).
- 4. **Start Date.** Provide the calendar month and year of entry into postdoctoral research program in the format MM/YYYY. The entering year is the first year of postdoctoral research experience, excluding non-research clinical training (for trainees, this date may precede the appointment to the training grant).
- 5. **Summary of Support During Training.** Provide the primary source and type of support during each twelve-month period of training, using TY1 for Training Year 1, TY2 for Training Year 2, etc. Do not list individual mentored career development awards here; they will be captured under grant support obtained as a PD/PI. For NIH support, list the awarding component and the activity (e.g., CA R01). **Bold** the grant being reported in this application. For other sources and types of support, use the categories below, and report only the primary source and type of support for each training year.

Sources of Support

- NSF
- Other Federal (Other Fed)
- University (Univ)
- Foundation (Fdn)
- Non-US
- Other
- None: Leave of Absence (LOA)

Types of Support

- Research grant (RG)
- Fellowship (F)
- · Training Grant (TG)
- Other

- 6. **Degree(s) resulting from Postdoctoral training and Year(s).** If applicable, provide any degrees resulting from the postdoctoral training and the year awarded. If the training program does not offer degrees, indicate "none." Trainees currently in the program should be designated "in training."
- 7. **Topic of Research Project.** Provide the topic of the research project.
- 8. **Initial Position and Current Position.** For trainees who have completed or left the program, their initial and current positions, department, and institution, as applicable. If individuals have held only one position, complete only the initial position column. If individuals hold joint appointments/positions, list only the primary position. If information is not available, report "unknown." For each position, indicate the workforce sector (i.e., academia, government, for-profit, nonprofit, other) and principal activity (i.e., primarily research, primarily teaching, primarily clinical, research-related, further training, unrelated to research). Research-related positions generally require a doctoral degree, and may include activities such as administering research or higher education programs, science policy, or technology transfer.
- 9. **Subsequent Grant(s)/Role/Year Awarded.** If applicable, subsequent fellowship, career development or research grant support obtained from any source, whether as PD/PI or in another senior role (i.e., co-investigator, faculty collaborator, or staff scientist). For NIH and other HHS support, list the awarding component, activity, role, and year (e.g., GM R01/Staff Scientist/2011). Up to five grants may be listed.

Part II. Those Clearly Associated with the Training Grant

In Part II, if applicable, the initial time this section is completed for a Research Performance Progress Report (RPPR), list any **current** postdoctorates clearly associated with the training grant who have been supported by NIH funds other than this training grant, and provide the information described in Part I, items 1-9, above, for each. "Clearly associated" postdoctorates are those with a training experience similar to those appointed to this training grant, but who are supported by other forms of NIH or HHS funding (e.g., fellowships or research grants). If applicable, for subsequent RPPRs and renewal applications, provide updated information on clearly associated postdoctorates, reflecting new entrants and other changes over the reporting period. In each subsequent year, continue to add new entrants and provide updated information about current and past clearly associated postdoctorates until 15 years of data have been completed; do not include data older than 15 years. Note that, for some postdoctoral programs, Part II may not be applicable.

Part III. Recent Graduates

In Part III (only for new applications and predoctoral renewal/revision applications requesting an expansion to postdoctoral support), list sequentially all postdoctorates **completing** a training experience in a field or program similar to the proposed program in the last five years who would have been eligible for the proposed program, if an NIH training or related award were available (in most cases, these will be U.S. citizens or permanent residents). For each postdoctorate, provide the information described in Part I, items 1-4 and 6-9, above.

Summarize the data from Parts I-III (as applicable) in the Research Training Program Plan, either in the Program Plan Section or the Progress Report Section, as appropriate.

For Research Performance Progress Reports (RPPRs) and renewal applications, provide updated trainee information in Part I, reflecting new appointments and other changes over the reporting period. Do not include data that are older than 15 years. In Part II, if applicable, provide updated information on clearly associated postdoctorates, reflecting new entrants and other changes over the reporting period. In each subsequent year, continue to add new entrants and provide updated information about current and past postdoctorates until 15 years of data have been completed; do not include data older than 15 years. For the RPPR, summarize these data in the Accomplishments Section, in responding to the question, "What opportunities for training and professional development has the project provided?".

Sample Table 8C. Program Outcomes: Postdoctoral

Part I. Those Appointed to the Training Grant

| Trainee | Doctoral Degree(s) and Year(s) | Faculty Member | Start Date | Summary of Support During Training | Degree(s) Resulting from Postdoctoral Training and Year(s) | Topic of Research Project | Initial Position | Current Position | Subsequent Grant(s)/Role/ Year Awarded |
|------------------------|--------------------------------------|-------------------|------------|--|--|--|--|---|--|
| Sanchez, Gregory B. | PhD 2007 | Brown, James | 07/2007 | TY 1: HL T32 TY 2: HL T32 TY 3: CA R01 TY 4: CA R01 | None | Uterine cancer and developmental biology | Staff Scientist Radiology MGH Academia Primarily Research | Assistant Professor Radiology University of Arizona Academia Primarily Research | CA K99/PI/2011 CA R00/PI/2013 |
| Cox, Jennifer H. | MD 2003 PhD 2003 | Doe, John | 08/2008 | TY1: HL T32 TY2: HL T32 | MPH 2009 | Molecular and functional dissection of hematopoietic stem cell niche | Instructor Internal Medicine Columbia Academia Primarily Research | Associate Professor Hematology Rutgers Academia Primarily Research | DK K08/PI/2011 DK R01/ Faculty Collaborator/2013 |

Part II. Those Clearly Associated with the Training Grant

| Trainee | Doctoral Degree(s) and Year(s) | l Mamhar | Start Date | Summary of Support During Training | Degree(s) Resulting from Postdoctoral Training and Year(s) | Topic of Research Project | Initial Position | Current Position | Subsequent Grant(s)/Role/ Year Awarded |
|-------------------|--------------------------------------|------------------|------------|---|--|--|------------------|---|--|
| McInnes, Julie | MD 2004 | Welte, Duncan | 07/2009 | TY1: HD K12 TY2: HD K12 | MPH 2011 | related to hospitalization in a Neonatal Intensive | | Associate Professor Pediatrics Yale Academia Primarily Research | HS R01/PI/2013 |

Part III. Recent Graduates (Only For New Applications and Predoctoral Renewal/Revision Applications Requesting Postdoctoral Support)

| Trainee | Doctoral Degree(s) and Year(s) | Faculty Member | Start Date | Summary of Support During Training | Degree(s) Resulting from Postdoctoral Training and Year(s) | Topic of Research Project | Initial Position | Current Position | Subsequent Grant(s)/Role/ Year Awarded |
|-------------------------|--------------------------------------|--------------------|------------|---|--|---|--|---|--|
| Roosevelt, Albert S. | PhD 2006 | McIver, Rosalie | 01/2007 | | None | Estrogen receptors and ovarian cancer | Biology University of Colorado Academia | Assistant Professor Biology University of Colorado Academia Primarily Research | CA R21/PI/2013 |
| Taylor, Susanna G. | PhD 2005 MD 2007 | Welte, Duncan | 07/2008 | | None | New inhibitors for cancer imaging | Staff Scientist Radiology Massachusetts General Hospital Academia Primarily Research | Staff Scientist Radiology Massachusetts General Hospital Academia Primarily Research | NSF/PI/2014 |